

AN 1978(02):J0220 FSTA
TI **Freezing** of vegetables by direct contact with aqueous solutions
of **ethanol** and **sodium** chloride.
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DT Journal
LA English
AB Aqueous **freezant** (AF 15-15) consisting of 15% NaCl and 15%
ethanol with a -19.3°F solubility limit was developed for
direct contact **freezing** of vegetables. Carrots (3/8-in dice) and
peas were **frozen** and **cooled** to 2.5°F in 1.5 min
of immersion and beans (1-in cut) and whole kernel corn were
frozen and **cooled** to 2.5°F in 2.5 min of
immersion. AF 15-15 **frozen** and blotted peas, beans and corn
contained 0.72-0.82% NaCl and were statistically indistinguishable from
air-blast **frozen** vegetables in organoleptic ratings. Air-blast
frozen carrot dice were preferred over AF 15-15 **frozen**
dice which contained 1.77% NaCl. A mixture of all of the above vegetables
frozen in AF 15-15 was slightly favoured over an air-blast
frozen mixture (6.7 vs. 5.8 score). AF 15-15 **frozen**
vegetables showed a small (2.3-0.9%) weight gain, whereas the air-blast
frozen vegetables showed losses of 3.9-13.3% with respect to fresh
weight
CC J (Fruits, Vegetables and Nuts)
CT **ETHANOL; FREEZING; FROZEN FOODS; SALT;**
SENSORY ANALYSIS; VEGETABLES; CONTACT; ETHYL ALCOHOL;
FREEZANTS; FROZEN; NaCl; ORGANOLEPTIC EVALUATION